

B.E. (CE) Part-IV 8th Semester Examination, 2007

**Project Planning and Management****(CE-801)****Time : 3 hours****Full Marks : 100**Use separate answerscript for each half.**FIRST HALF**(Answer Q.No.1 and TWO from the rest.)

1. Write short notes on any three : [3×6]
- Updating
  - Development of networks and their advantages
  - Resource allocations
  - Fulkerson's rule
  - Short comings of bar charts and their removals.
2. a) From view point of management, state the special feature for civil engineering construction projects. A project consists of 8 events having predecessor relations as given below. Draw the network.

<u>Event</u>	<u>Immediate Predecessor</u>
1	—
2	1
3	1
4	2, 3
5	3, 4
6	3, 5
7	6
8	4, 7

- b) What is meant by "Float"? Explain different types of floats. [(2+6)+(3+5)]
3. Explain different phases of project management. What are the scope and aims of the project planning? Describe the steps in project planning. [16]
4. Data about durations and cost of various activities of the network, shown below in Fig.1 are given in the following table.

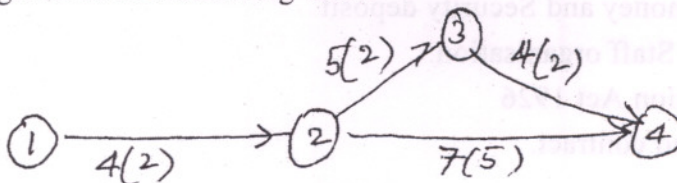


Fig.1



Activity	Normal Duration (weeks)	Normal Cost (Rs.)	Crash Duration (Rs.)	Crash Cost (Rs.)
1 – 2	4	4,000	2	12,000
2 – 3	5	3,000	2	7,500
2 – 4	7	3,600	5	6,000
3 – 4	4	5,000	2	10,000

The project overhead costs are Rs. 2000 per week. Find the optimum duration and cost associated with it. Also draw least cost network. [16]

5. For an activity optimistic time estimate is 36 months, pessimistic time estimate is 108 months and most likely time estimate is 36 months. Calculate the expected time estimate for the activity. What is meant by “Slack” in PERT analysis? Describe the method to evaluate the probability of meeting the scheduled data for a project. [16]

### SECOND HALF

(Answer Q.No.9 and TWO from the rest.)

6. What is meant by organisation? Explain the main principles for developing an effective and efficient organisation. [5+10]
7. a) Enumerate the general principles of contract.  
b) Under what circumstances a contract is terminated? Also state the conditions for accepting a tender. [7+8]
8. Describe bar chart? Explain the shortcomings of bar charts. Develop a bar chart diagram for the construction of footing with the following data. Also estimate the minimum time required for the project. [3+5+7]

Jobs	Layout & Excavation	P.C.C.	Preparation of Reinforcement	Fixing of Reinforcement	Fixing of Shutting	Concreting
Time (days)	5	1	4	2	1	1

9. Answer any four of the following : [4×5]
- Notice Inviting Tender
  - Industrial Dispute Act, 1947
  - Earnest money and Security deposit
  - Line and Staff organisation.
  - Trade Union Act 1926
  - Negotiated contract.